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EXAMINER

PAULA D MORRIS
PAULA D. MORRIS & ASSOCIATES, PC
2925 BRIAR PARK, STE 930
HOUSTON TX 77042

KELLY, C

ART UNIT	PAPER NUMBER
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 25

Application Number: 08/869109

Filing Date: June 4, 1997

Appellant(s): Chesser et al.

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GROUP 1700

Paula D. Morris
For Appellant

EXAMINER'S ANSWER

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This is in response to appellant's brief on appeal filed July 10, 2000

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

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(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 1-3, 7, 9, 14-14, 27 and 39-65 do not stand or fall together and provides reasons as set forth in 37 CAR 1.192(c)(7) and (c)(8).

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

GB 2084586 4-15-1982

(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, 7, 9, 14-16, 21-23, 26,27, 29-41 and 42-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2084586.

The GB reference teaches adding a brine to a polymer to make a polymer dispersion and then adding the polymer dispersion to another brine solution resulting in a brine having a higher concentration. See page 2, described as a latter embodiment in lines 35-45. The reference discloses that a polymer, water and inorganic salt are mixed together to hydrate the polymer and then an aqueous brine is admixed with the polymer suspension. Calcium bromide, zinc bromide, calcium chloride and zinc chloride are among the preferred cations used. The inorganic salt is described as being calcium chloride, calcium bromide, zinc bromide and zinc chloride. The

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difference between the reference and the application is that the reference does not specifically state the ranges as applicant claims. However, the amounts used are subject to modification due to the desirability of the well completion solutions. It is obvious to optimize the amounts of the components of a composition. In re Aller 105 USPQ 223. It would have been obvious to one of ordinary skill in the art to make the claimed invention by the method also claimed because the GB reference teaches hydrating a polymer in a brine(salt) and then adding that solution to an additional aqueous brine.

(II) Response to Argument

Appellant argues that the examiner has not pointed to a teaching or suggestion in GB 2084586 which teaches to add a water soluble polymer to a precursor brine. The examiner has previously pointed to page 2 for this information. Also on page 4, the polymer is added to a brine and then added to a final brine. See example 2, where the polymers are added to the pre-made brines. Other brines are added to the polymer/brine solution. The reference teaches two methods, adding the polymer to water and then to brines or adding the polymer straight to brines. Each method results in the brine/polymer concentration being adjusted by further mixing further with brines. The further addition of brines is performed to arrive at the desired density. See page 2, line 29.

The GB 2084586 reference does not teach the same density or amounts of polymer to be used in the instant invention. However, it is clearly explained at page 1, line 31, that a

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sufficient quantity of a heavy aqueous brine to provide an quantity of a well servicing fluid of the desired density. The reference also states that the density must be high enough to be used as well servicing fluids and that the brines are added in an amount to make a predetermined density. The reference also states that different salts have different heats of solution and therefore the amounts of salts added will be dependent upon the particular salts which are selected. See page 2, line 26-29. One of ordinary skill in the art would using this reference understand the need to optimize the amounts of the components in the application. The reference clearly points out the need to make the density as is required for the particular use based on the particular components.

Appellants further argue that the examiner has not established a prima facie case of obviousness because the examiner has not pointed to the reference citation where it is disclosed that the water soluble polymer is added to the precursor brine and then to mix with a final brine. The examiner again points to pages 3 and 4 where it states that the polymer is added to pre-mixed brine which is added to a further brine. Appellants argues that the examiner has not pointed to a teaching of the combination of (a) and (b) which entails adding the polymer with a high density brine. Example 3 shows brines were prepared by adding polymer to pre-made brines. Also page 2 speaks to adding polymer to water containing salts of high densities (brines) at line 35-40. Again, the reference notes two different ways of making polymer/brine solutions. Applicant continues to point to one embodiment of the reference which teaches adding water first and mixing. The reference also teaches adding the polymer straight

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into the pre-made brines. Appellant further argues that the addition of the polymer to water will result in a viscous mass. This is not what the reference intends. Appellant continues with the argument that the polymer water and inorganic salt are mixed in a manner having the polymer mixed with the water. The examiner does not agree. The reference states that the inorganic salt is in the water. The reference goes on to state that salts (brines) can be of multivalent salts and names calcium chloride, calcium bromide and zinc chloride and zinc bromide. Applicant contends that the statement "mixed as above" means to add the polymer to the water first. The examiner does not agree because this would not be a further embodiment as the reference refers to it as.

Appellant further argue that there is no motivation to substitute a multivalent brine. There is no need for substitution as the reference clearly names multivalent brines on 2, line 42 and 43.

Appellant further argues that the examiner has not pointed to a citation in the reference where there is used an amount of 0.5 to 4 pounds of polymer per gallon or 1-2 pounds of the precursor brine or 9-14 pounds per gallon or 11-13 pounds per gallon of the density of the polymer dispersion. The examiner agrees that there is no specific reference to applicant's amounts used in the instant invention. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the brines at concentrations which can be used as well servicing solution. Pages 1 and 2 speak at length to making the "desired" concentration and the amounts of salts added being dependent upon which salts are

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used. It is obvious to optimize the concentrations of components in a composition. *In re Aller* 105 USPQ 223. Applicant uses the invention for drilling and completion operations, which is the same purpose the reference uses their polymer dispersion.

Appellant argues that examiner has not established prima facie case of obviousness for treating a high density brine or for making a polymer dispersion. The examiners arguments speak to adding a polymer to a brine solution.

Appellants further argues that the examiner has not established a prima facie case of obviousness of the teaching to add a sufficient quantity of precursor polymer dispersed in a multivalent brine to produce polymer particles having the required level of prehydration. The examiner views the “sufficient” quantity as the quantity that would allow the fluids to work as effective drilling and well completion solutions. The reference teaches the same.

Appellant argues that the examiner may contend that the solutions inherently have the same level of prehydration. The examiner has never mentioned the term inherently so the argument is therefore moot.

Appellant continues with an argument concerning monovalent salts and the Chesser declaration. Neither monovalent salts or the Chesser declaration was part of the final rejection and have no bearing on the present arguments. The reference clearly teaches multivalent ions in all of the examples.

Appellant contends that the method of treating a high density brine is not obvious because the reference does not contain specific limitation to multivalent brines. Multivalent

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brines are outlined and specifically named on page 2. This is a sufficient suggestion to one of ordinary skill in the art to use multivalent brines.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



C.H. Kelly

August 7, 2000


Mark J. Kelly
SPE
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Conferee
Mark Ben
Conferee